

WHAT WE CLAIM IS:

1. A cap comprising:
an annular top wall having an opening formed therein; and
5 a generally conical inner wall positioned beneath the opening and interrelated
to the top wall, wherein the inner wall includes a plurality of radially extending striations.

2. The cap of claim 1 further comprising an annular outer wall depending
from the periphery of the top wall and including means for fixedly associating the cap with
10 an open end of a fluid-holding vessel.

3. The cap of claim 1, wherein the inner wall depends from about the
opening.

4. The cap of claim 1, wherein the top wall and the inner wall are joined
15 to each other by a lower annular wall depending from about the opening.

5. The cap of claim 1 further comprising an upper annular wall extending
upward from and generally perpendicular to the top wall.

6. The cap of claim 5 further comprising a wick contained within the cap.

7. The cap of claim 6, wherein the wick is positioned substantially above
the top wall.

8. The cap of claim 6, wherein the wick is a pile fabric.

9. The cap of claim 6 further comprising a seal affixed to a top surface of
the upper annular wall.

10. The cap of claim 6, wherein the combined force needed to penetrate the wick and the inner wall with a plastic pipette tip is less than about 10 pounds force.

11. The cap of claim 6, wherein the combined force needed to penetrate the wick and the inner wall with a plastic pipette tip is less than about 7 pounds force.

12. The cap of claim 6, wherein the combined force needed to penetrate the wick and the inner wall with a plastic pipette tip is less than about 4.5 pounds force.

13. The cap of claim 1, wherein the inner wall has an angle of from about 25° to about 65° relative to the longitudinal axis of the cap.

14. The cap of claim 1, wherein each of the striations extends from a start-point at or near an apex of the inner wall.

15. The cap of claim 1, wherein the thickness ratio between non-striated and striated portions of the inner wall is in the range of about 10:1 to about 1.25:1.

16. The cap of claim 1, wherein the average thickness of striated portions of the inner wall is between about 0.002 inches and about 0.008 inches, and wherein the average thickness of non-striated portions of the inner wall is between about 0.01 inches and about 0.02 inches.

17. The cap of claim 1, wherein the striations are formed on an inner surface, an outer surface or both the inner and outer surfaces of the inner wall.

18. The cap of claim 17, wherein the inner wall has between 3 and 12 of the striations.

19. The cap of claim 1, wherein each of the striations comprises a groove in the inner wall.

20. The cap of claim 1 further comprising one or more radially extending ribs formed on an inner surface of the inner wall, each rib being positioned between a pair of adjacent striations.

5 21. The cap of claim 1, wherein an inner surface of the inner wall is at least partially coated with a lubricant.

22. The cap of claim 1, wherein the force needed to penetrate the inner wall with a plastic pipette tip is less than about 8 pounds force.

10 23. The cap of claim 1, wherein the force needed to penetrate the inner wall with a plastic pipette tip is less than about 6 pounds force.

15 24. The cap of claim 1, wherein the force needed to penetrate the inner wall with a plastic pipette tip is less than about 4 pounds force.

25. The cap of claim 1, wherein the cap is a molded plastic.